Newport to have been formed by M. Gervais into the genus *Planiulus*, but with insufficient characters. He also stated, in reference to the question of the habits of these insects and the best modes of their destruction, that they deposit their eggs from March to May, after which there is an interval of a few months, a second period of oviposition being in July and August. Mr. Ingpen doubted whether these insects ever attack perfectly healthy plants, but Mr. Saunders mentioned various instances of an opposite character.

The following papers were read:—

Monograph of the Dipterous genus *Ceria*. By W. W. Saunders, Esq., F.L.S. (since published in the first part of the fourth volume of the Transactions of the Society).

A notice respecting the Prizes offered by the Rev. F. W. Hope.

Observations on the sexual distinctions and mode of copulation of an Indian species of *Mutilla*. By Captain Boys.

Mr. Westwood having suggested that one of the statements in Captain Boys's letter respecting the transporting of prey by a winged *Mutilla*, appeared to him to apply to a winged female *Scolia* rather than to a winged male *Mutilla*, as no male fossorial hymenopterous insect had been hitherto observed to possess such habits, Mr. Doubleday stated that he had captured many specimens of *Monedula* in the United States in the act of capturing gad-flies (*Tabani*), whence they are termed horse-guards, and that all his specimens proved to be males.

Mr. Westwood exhibited drawings of and made some observations upon the portable nests of the larvæ of different species of *Chlamys*.

MISCELLANEOUS.

On the Fossil Cycadeæ *in general, and especially on those which are found in Silesia.* By Prof. Gœppert*.

The author commences his memoir by observing that, notwithstanding the considerable increase of late in the number of species which compose the fossil *Cycadeæ*, the classification established in 1828 by M. Ad. Brongniart, in his 'Prodrome des Végétaux Fossiles,' still suffices, with a few modifications, for the wants of the new intercalations.

The great majority of the fossil *Cycadeæ* known up to the present time belong to the Jurassic formation; those which the author collected in Silesia are found in the deposits of argillaceous iron of Upper Silesia, deposits which form part of the above-mentioned formation. After passing in review the attempts which, since the publication of the 'Prodromus' of M. Ad. Brongniart, have been made to establish a new classification of the *Cycadeæ*, M. Gœppert enumerates the whole of these fossil vegetables, distributed according to

* Being an abstract drawn up by M. Tchihatcheff, and laid before the French Geological Society, Nov. 18, 1844.

the method of M. Brongniart, re-uniting however the two genera *Zamia* and *Zamites* into one genus, and adding the genus *Zamiostrobus* (Endlich.) to designate their fructifications.

Amongst the *Cycadeæ* hitherto known, and which M. Gœppert divides into the four following sections, *Cycadites*, *Zamites* (comprising the *Zamiostrobus*), *Pterophyllum* and *Nilsonia*, the following species have been discovered by the author :—

Zamiostrobus (fruit) ovatus.
—— crassus.
—— Sussexiensis.
Pterophyllum Oeynhausianum (av. fig.).
—— Carnallianum (av. fig.).
—— propinquum (av. fig.).
—— gonorrhachis (av. fig.).
—— Preslianum.
—— taxinum.
Pterophyllum Braunianum.
—— Dunkerianum.
—— Munsteri.
—— inconstans.
—— difforme.
—— lunularifolium.
Nilsonia compta.
—— Bergeri.
—— acuminata.
—— Kirchneriana.

The result of the enumeration made by the author is, that the total number of the different species of fossil *Cycadeæ* known up to the present time and designated by a specific name amounts to 78, amongst which are 9 stems or stipes, 65 fronds and 4 fructifications. The genera which compose this total are in the following proportions :—

		Stems.	Fronds.	Fructifications.
Cycadites	11	4	7	
Zamites	28	5	23	
Zamiostrobus	4	...	...	4
Pterophyllum	23	...	23	
Nilsonia	12	...	12	
Total number of species	78	9	65	4

The species are thus distributed in the different formations :—

Carboniferous formation ...	4	Jura	5
Red Sandstone	1	Weald Clay	5
Grès bigarré	2	Greensand	3
Keuper	2	Chalk	2
Lias	19	Lignite	3
Oolite	29	Unknown deposit	3

Making a large allowance for the inevitable reproductions of the same species under new names, as well as for the probability that many fronds and stipes, described as different species, are only in fact the integrant parts of the same individual, it is not less true that on comparing the species of the fossil with those of the existing *Cycadeæ*, the total number of which is generally estimated at 38, the numerical advantage will infallibly belong to the first, so that their number may always be placed at double that of the recent *Cycadeæ*; inasmuch as the influence of the causes which would tend to reduce

that proportion is greatly counterbalanced by the discoveries which are continually going on of new fossil species.

The eleven species of *Cycadites* approach most in their stiff and uninervous leaves to the recent species of *Cycas*, the number of which is nearly equal to that of the fossil species; a part of the genus *Zamites*, and especially the species (nearly to the number of fifteen) the pinnules of which present a certain contraction at their base, correspond to the genus *Encephalartos*, whilst the species (to the number of eight) the pinnules of which are articulated at their base, and are fixed to the frond in an oblique manner, might offer a pendant to the *Macrozamia*. Lastly, the genera *Zamiostrobus*, *Nilsonia* and *Pterophyllum*, composed of thirty-eight species, must be considered as extinct genera, and do not admit of any parallel with the *Zamia*, L., the pinnules of which are distinctly *articulated*, whilst those of the genera in question do not at all present that peculiarity.

The author concludes his important work with a comparative table of the geographical and geological distribution of the living and fossil *Cycadeæ*. We submit it to our readers, not only because it is of great interest, but also because it serves to render the extent of the laborious investigations of the celebrated savant of Breslau appreciated.

Present Flora.	*Fossil Flora.*
Cycas, L., composed of 10 species; tropical and subtropical Asia, New Holland.	*Cycadites*, composed of 11 species; Sweden, Isle of Portland, France, Bohemia, Saxe-Coburg and Hanover.
Macrozamia, Miq., 3 species; New Holland and the Cape.	*Zamites*, Brong. (incomplete analogy); France, England, Baireuth, Bamberg (Bavaria).
Encephalartos, Lehm., 15 species; the Cape, not far from the tropics.	Reappears 15° further north, that is to say, Isle of Portland, England, Bamberg.
Zamia, 10 species; tropical and subtropical America.	Wholly wanting.
Genus partly extinct.	*Zamites*, Gœpp.; Isle of Portland, England, France, Bamberg, Baireuth, East Indies.
Genus wholly extinct.	*Zamiostrobus*, England.
Genus wholly extinct.	*Pterophyllum*, Brong., 23 species; Switzerland, Wurtemburg, Austria, Bohemia, Bamberg, Baireuth, Saxony, Schaoumberg, Silesia.
Genus wholly extinct.	*Nilsonia*, Brong., 12 species; Sweden, England, Saxe-Coburg, Quedlinbourg, Bamberg, Baireuth.

Extract of a Note from J. E. Gray, Esq., *relative to his paper on the Animal of* Spirula, p. 257.

To Richard Taylor, Esq.

My dear Sir,—While in Holland, my friend M. Milne Edwards has sent me M. Laurent's 'Annales d'Anatomie et Physiologie,' containing a paper by M. de Blainville describing the body of *Spirula*,